

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An apparatus for performing instant messaging (IM) under a first protocol, said apparatus comprising:
 - a first device;
 - a second device implementing a second protocol, wherein at least one of said first device and said second device is a telephone set with a keypad having a fixed number of key buttons and a display;
 - a protocol converter to convert between said first protocol and said second protocol;
 - a register to register said first device and said second device; and
 - a map to map a first client to said first device and a second client to said second device, wherein full IM capability is provided to said telephone set.
2. (original) The apparatus of claim 1 wherein said first protocol is a Session Initiation Protocol (SIP).
3. (original) The apparatus of claim 2 wherein said second protocol is a Computer Supported Telephony Application (CSTA).
4. (currently amended) The apparatus of claim 3 wherein said first device is a SIP first protocol device, managing and determining presence information for a respective IM user.
5. (original) The apparatus of claim 4 wherein said first device is a Personal Computer (PC).
6. (original) The apparatus of claim 4 wherein said first device is a Personal Digital Assistant (PDA).

7. (currently amended) The apparatus of claim 3 wherein said second device is said telephone set and said telephone set is a digital telephone, instant messaging being displayed on said display.

8. (original) The apparatus of claim 7 wherein said digital telephone is connected through a telephonic switch.

9. (currently amended) The apparatus of claim 8 wherein said telephonic switch is a Private Branch Exchange (PBX) and full IM capability includes composing messages, responding to messages and creating a buddy list.

10. (currently amended) The apparatus of claim 3 wherein said first device is a CSTA ~~second~~ ~~protocol~~ device.

11. (currently amended) The apparatus of claim 10 wherein said first device is said telephone set and said telephone set is a digital telephone, wherein at least one key button is a programmable key.

12. (currently amended) The apparatus of claim 11 wherein said digital telephone is connected through a telephonic switch monitoring said key buttons and having full control of said display.

13. (original) The apparatus of claim 12 wherein said telephonic switch is a Private Branch Exchange (PBX).

14. (currently amended) A method for supporting Instant Messaging (IM) in digital telephones, comprising the steps of:

registering a first protocol digital telephone set including a display and a keypad having a fixed number of key buttons;

converting said first protocol to a second protocol;

mapping a client to said digital telephone set; and

communicating an instant message to or from said digital telephone set, instant messaging being displayed on said display and full IM capability is provided to said first protocol digital telephone set.

15. (currently amended) The method of claim 14 further ~~furthering~~ comprising the steps of:
registering a second device; wherein said mapping step further maps a second client to said second device and said instant messaging communicating step ~~further~~ includes communicating an instant message between said first digital telephone set and said second device.

16. (currently amended) The method of claim 15 wherein said second device is a personal computer (PC); and wherein said mapping step further maps a second client to said PC and said instant messaging communicating step ~~further~~ includes communicating an instant message between said first digital telephone set and said PC.

17. (currently amended) The method of claim 15 wherein said second device is a CSTA first protocol ~~first protocol~~ digital telephone set; and wherein said converting step also converts said CSTA first protocol ~~first protocol~~ device to a SIP said second protocol ~~second protocol~~ device, said mapping step further maps a second client to said second digital telephone set and said communicating step further includes communicating an instant message between said first and said second digital telephone sets.

18. (currently amended) A method according to claim 14, wherein at least one key button is a programmable key, said method further comprising the step of configuring said at least one key button as an Instant Messaging (IM) key for a digital telephone set.

19. (original) A method according to claim 18 further comprising the step of establishing the IM connection by pressing said instant messaging key.

20. (currently amended) A method according to claim 14, instant messaging further comprising ~~the step of~~ sending a notification to said digital telephone set when a new instant message arrives, said digital telephone set displaying a new instant message notification in response.

21. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ is accomplished while the digital telephone set is off-hook.

22. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ includes composing and displaying instant messages using the standard key buttons and display space of said digital telephone set.

23. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ includes sending a notification to said digital telephone set when a request to add said digital telephone set client to the contact list of another instant messaging client is received.

24. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ includes using said digital telephone set to sign-in and sign-out for instant messaging services.

25. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ includes using said digital telephone set to change the on-line and off-line status of said digital telephone set ~~for instant messaging~~.

26. (original) A method according to claim 14 wherein said step of communicating includes using said digital telephone set to query the status of a contact list member.

27. (original) A method according to claim 14 wherein said step of communicating includes determining the presence status of said digital telephone based on call activity of said digital telephone.

28. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ includes sending stored common replies to other instant messaging clients.

29. (original) A method according to claim 28 wherein at least one of said stored common replies includes at least one custom data field.

30. (currently amended) A method according to claim 14 wherein instant messaging ~~said step of communicating~~ includes sending stored common messages to other instant messaging clients.

31. (original) A method according to claim 30 wherein at least one of said stored common messages includes at least one custom data field.

32. (currently amended) A method for performing instant messaging (IM) under a first protocol, said method comprising the steps of:

identifying a first device;

implementing a second protocol in a second device, wherein at least one of said first device and said second device is a telephone set with a display and a keypad having a fixed number of key buttons;

converting between said first protocol and said second protocol;

registering said first device and said second device; and

mapping a first client to said first device and a second client to said second device, wherein full IM capability is provided to said telephone set.

33. (original) The method of claim 32 wherein said first protocol is a Session Initiation Protocol (SIP).

34. (original) The method of claim 33 wherein said second protocol is a Computer Supported Telephony Application (CSTA).

35. (currently amended) The method of claim 34 wherein said first device is a SIP ~~first protocol~~ device, managing and determining presence information for a respective IM user.

36. (original) The method of claim 35 wherein said first device is a Personal Computer (PC).

37. (currently amended) The method of claim 34 wherein said second device is said telephone set and said telephone set is a digital telephone, instant messaging being displayed on said display.

38. (original) The method of claim 37 wherein said digital telephone is connected through a telephonic switch.

39. (currently amended) The method of claim 38 wherein said telephonic switch is a Private Branch Exchange (PBX) and full IM capability includes composing messages, responding to messages and creating a buddy list,

40. (currently amended) The method of claim 34 wherein said first device is a CSTA ~~second~~ ~~protocol~~ device.

41. (currently amended) The method of claim 40 wherein said first device is said telephone set and said telephone set is a digital telephone, wherein at least one key button is a programmable key.

42. (currently amended) An apparatus for supporting Instant Messaging (IM) in digital telephones, comprising:

a register to register a first protocol digital telephone set including a display and a keypad having a fixed number of key buttons;

a converter to convert said first protocol to a second protocol;

a map to map a client to said digital telephone set; and

a communication device to ~~communicate an~~ instant message with to or from said digital telephone set, instant messaging being displayed on said display and full IM capability is provided to said first protocol digital telephone set.

43. (currently amended) The apparatus of claim 42 further ~~furthering~~ comprising:

a register to register a second device; wherein said map further maps a second client to said second device and said communication device further ~~communicates an~~ instant messages ~~message~~ between said first digital telephone set and said second device.

44. (currently amended) The apparatus of claim 43 wherein said second device is a personal computer (PC); and wherein said map further maps a second client to said PC and said

communication device further ~~communicates an instant~~ messages ~~message~~ between said first digital telephone set and said PC.

45. (currently amended) The apparatus of claim 43 wherein said second device is a first protocol digital telephone set; and wherein said converter also converts said first protocol device to said second protocol device, ~~said map further maps a second client to said second digital telephone set and said communication device further~~ ~~communicates an instant~~ messages ~~message~~ between said first and said second digital telephone sets.

46. (currently amended) An apparatus according to claim 42, wherein at least one key button is a programmable key programmed as ~~further comprising~~ an Instant Messaging (IM) key configured to initiate instant messaging in a digital telephone set.